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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,367	12/07/2001	Graham Bank	085874-0388	7047

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EXAMINER	
SAMS, MATTHEW C	
ART UNIT	**PAPER NUMBER**
2643	

DATE MAILED: 02/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/005,367	BANK ET AL.	
	Examiner	Art Unit	
	Matthew C. Sams	2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 December 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/26/2003, 4/15/02*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

1. The information disclosure statements filed 1/29/2002, 4/15/2002 and 3/26/2003 have been considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-9, 16 and 23 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Alameh et al. (US-6,104,808 hereafter, Alameh).

Regarding claim 1, Alameh teaches a mobile telephone comprising a body (Fig. 2 [202]) and a bending wave loudspeaker (Fig. 2 [240]) mounted to a body which comprises a panel-form member (Fig. 3 [204]) capable of supporting bending waves and a transducer mounted to the panel-form member to excite bending wave vibration in the panel-from member to produce an acoustic output (Fig. 2 [240]), wherein the body

defines an open-faced cavity and the panel-form member is movable between a first position in which the panel-form member covers the open face of the cavity (Fig. 3), and a second position in which the panel-form member is spaced away from the cavity. (Fig. 2 & Col. 4 lines 14-29)

Regarding claim 2, Alameh teaches a mobile telephone that when the panel-form member is in the closed position, a volume of air is enclosed in the cavity to ensure the loudspeaker has a desired bandwidth when operating with the panel-form member in the first position. (Col. 6 lines 45-51, Fig. 2 & Fig. 3)

Regarding claim 3, Alameh teaches a mobile telephone that has a cavity and a panel-form member that form a coupled system with coupled modes. (Col. 6 lines 45-61, Fig. 2 & Fig. 3)

Regarding claim 4, Alameh teaches a mobile telephone that has a body which acts as a baffle for the loudspeaker when the panel-form member is in the closed position. (Col. 3 lines 53-62, Fig. 2 & Fig. 3)

Regarding claim 5, Alameh teaches a mobile telephone that when the panel-form member is in the closed position, the mobile phone is usable in hands-free conference mode. (Col. 4 line 56 through Col. 5 line 17 & Fig. 3)

Regarding claim 6, Alameh teaches a mobile telephone that when the panel-form member is in the open position, the mobile phone is usable in handset mode. (Col. 4 line 56 through Col. 5 line 17 & Fig. 2)

Regarding claim 7, Alameh teaches a cavity that is sealed by a resilient member disposed between the panel-form member and the body when the panel-form member is in the first position. (Col. 7 lines 15-25 and Fig. 4 [460])

Regarding claim 8, Alameh teaches a mobile telephone with a cavity that is sealed to prevent acoustic radiation from leaking from the cavity. (Col. 7 lines 15-25 and Fig. 4 [460])

Regarding claim 9, Alameh teaches a mobile telephone with a resilient member that is a ring of foamed plastic or rubber. (Col. 3 lines 53-62 and Fig. 2 [271])

Regarding claim 16, Alameh teaches a panel-form member that resonates because of a transducer. (Alameh Fig. 2 [240])

Regarding claim 23, Alameh teaches a mobile telephone comprising a body (Fig. 2 [202]) and a bending wave loudspeaker (Fig. 2 [240]) pivotally mounted to a body which comprises a panel-form member (Fig. 3 [204]) capable of supporting bending waves and a transducer mounted to the panel-form member to excite bending wave vibration in the panel-from member to produce an acoustic output (Fig. 2 [240]), wherein the body defines an open-faced cavity and the panel-form member is movable between a first position in which the panel-form member covers the open face of the cavity (Fig. 3), and a second position in which the panel-form member is spaced away from the cavity. (Fig. 2 & Col. 4 lines 14-29) Alameh teaches a mobile telephone that when the panel-form member is in the closed position, a volume of air is enclosed in the cavity to ensure the loudspeaker has a desired bandwidth when operating with the panel-form

member in the first position. (Col. 6 lines 45-51, Fig. 2 & Fig. 3) Alameh teaches a panel-form member that is hinged at the edge of its body. (Fig. 2 [220])

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alameh and Schaefer (US-4,718,110)

Regarding claim 10, Alameh teaches a mobile telephone with a resilient member that is a ring of foamed plastic or rubber. (Col. 3 lines 53-62 and Fig. 2 [271]) Alameh differs from the claimed invention by failing to show the resilient member is mounted in a groove on the body. However, Schaefer teaches a gasket that is mounted in a contoured groove on the body. (Fig. 3 [54 & 64] and Col. 4 lines 23-29) It is obvious that one of ordinary skill in the art would be motivated to use the gasket mounted in the groove of Schaefer with a mobile telephone of Alameh because it provides a weatherproofing ability to keep moisture out of the interior of the mobile device. (Col. 4 lines 13-29)

Regarding claim 11, the limitations of claim 11 are rejected as the same reason set forth in claim 10.

6. Claims 12-15, 17-22, 24-27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alameh and Shirakawa (US-6,230,028).

Regarding claim 12, Alameh teaches a mobile telephone with a screen mounted in the body and a panel-form member. Alameh differs from the claimed invention by not showing the panel-form member having a transparent member which allows a user to see the screen when the panel-form member is in the closed position. However, Shirakawa teaches a panel-form member having a transparent member which allows a user to see the screen when the panel-form member is in the closed position. (Fig. 1A & 1B [12]) It is obvious that one of ordinary skill in the art would be motivated to use the transparent member of Shirakawa with the panel-form member of Alameh because the transparent member allows a user to use the hands-free speakerphone and still view the information on the display such as caller I.D., clock, or the length of the current call. (Col. 1 lines 34-48)

Regarding claim 13, Shirakawa teaches a mounting position for a transducer that is spaced away from the screen. (Fig. 1B [16 & 17])

Regarding claim 14, Shirakawa teaches a narrow wall at least partially surrounds the transparent portion and projects from a surface of the panel-form member. (Fig. 1B [21])

Regarding claim 15, Shirakawa teaches a wall that projects from the surface of the panel-form member and faces the cavity when the panel-form member is in the closed position. (Fig. 1A & Fig. 1B)

Regarding claim 17, Alameh teaches a mobile telephone with a screen mounted in the body and a panel-form member. Alameh differs from the claimed invention by not showing the panel-form member having a transparent member which allows a user to see the screen when the panel-form member is in the closed position. However, Shirakawa teaches a screen mounted in the body, with a panel-form member comprising a transparent portion (Fig. 1B [12]), which allows a screen (Fig. 1B [18]) to be visible when the panel-form member is in the closed position. (Fig. 1A & Col. 2 lines 53-65) It is obvious that one of ordinary skill in the art would be motivated to use the transparent member of Shirakawa with the panel-form member of Alameh because the transparent member allows a user to use the hands-free speakerphone and still view the information on the display such as caller I.D., clock, or the length of the current call. (Col. 1 lines 34-48)

Regarding claim 18, Shirakawa teaches a transducer that is mounted at a marginal position (Fig. 1B [17]) on the panel-form member (Fig. 1B [11]) and is spaced away from the transparent portion (Fig. 1B [12]) so not to obscure a user's view of the screen (Fig. 1B [18]). (Col. 2 lines 53-65)

Regarding claim 19, the limitations of claim 19 are rejected as the same reason set forth in claim 14.

Regarding claim 20, the limitations of claim 20 are rejected as the same reason set forth in claim 15.

Regarding claim 21, Shirakawa teaches a panel-form member that resonates because of a transducer. (Fig. 1B [17])

Regarding claim 22, Shirakawa teaches a panel-form member and a transducer that act together as a microphone. (Fig. 1B [17] and Col. 2 lines 53-65)

Regarding claim 24, the limitations of claim 24 are rejected as the same reason set forth in claim 17.

Regarding claim 25, the limitations of claim 25 are rejected as the same reason set forth in claim 18.

Regarding claim 26, the limitations of claim 26 are rejected as the same reason set forth in claim 15.

Regarding claim 27, Alameh teaches a cavity that is sealed by a resilient member disposed between the panel-form member and the body when the panel-form member is in the first position. (Col. 7 lines 15-25 and Fig. 4 [460])

Regarding claim 29, the limitations of claim 29 are rejected as the same reason set forth in claim 22.

7. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alameh and Shirakawa as applied to claim 27 above, and further in view of Schaefer.

Regarding claim 28, Alameh and Shirakawa discloses the mobile telephone of claim 26 above, but differ from the claimed invention by not mentioning a wall that supports the resilient member. However, Schaefer teaches a gasket that is mounted in a contoured groove on the body. (Fig. 3 [54 & 64] and Col. 4 lines 23-29) It is obvious that one of ordinary skill in the art would be motivated to use the gasket mounted in the groove of Schaefer with a mobile telephone of Alameh and Shirakawa because the gasket mounted in a groove provides a weatherproofing ability to keep moisture out of

the interior of the mobile device and helps absorbing lateral shear loads. (Col. 4 lines 13-29)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Sams whose telephone number is (703)305-0810. The examiner can normally be reached on M-F 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (703)305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MCS
2/8/2005

GEORGE ENG
PRIMARY EXAMINER